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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/643,535	08/19/2003	Akihiko Sakamoto	SAKAMOTO ET AL3	4279
25889	7590	01/10/2005	EXAMINER	
WILLIAM COLLARD COLLARD & ROE, P.C. 1077 NORTHERN BOULEVARD ROSLYN, NY 11576			GROUP, KARL E	
			ART UNIT	PAPER NUMBER
			1755	

DATE MAILED: 01/10/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/643,535

Applicant(s)

SAKAMOTO ET AL.

Examiner

Karl E. Group

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 8-19-03, 5-13-04.
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claim 9 is rejected under 35 U.S.C. 102(b) as being clearly anticipated by Yamaguchi et al (5,895,767).

See example 4, Table 1.

4. Claims 1,4-9 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese document 2002154840.

See example 10. Products of identical chemical composition may not have mutually exclusive properties. In re Spada, 15 USPQ2d 1655,1658 (Fed. Circ. 1990).

Art Unit: 1755

5. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ishida et al (6,060,412).

Ishida et al teach a crystallized glass composition including 55-72% SiO<sub>2</sub>, 16-30 Al<sub>2</sub>O<sub>3</sub>, 1.5-3 Li<sub>2</sub>O, 1-10 K<sub>2</sub>O and 1-5 TiO<sub>2</sub> with a crystal phase of beta-spodumene having a crystal size not greater than 5 microns, see column 2, lines 64-67 and column 4, lines 7-56. Ishida et al fail to exemplify a composition that falls within the claimed ranges and/or having the claimed Li<sub>2</sub>O to K<sub>2</sub>O ratio of less than 2.2. However a reference may be used for all it realistically teaches and are not limited to the specific examples, In re De Lisle 56 CCPA 1319, 406 F.2d 386 160 USPQ 806 (1969).

The subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see In re Malagari, 182 U.S.P.Q. 549.

6. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mitachi et al (6,170,995).

Mitachi et al teach a crystallized glass composition including 60-70% SiO<sub>2</sub>, 16-25 Al<sub>2</sub>O<sub>3</sub>, 1.5-3 Li<sub>2</sub>O, 1-5.5 K<sub>2</sub>O and 1.3-4.5 TiO<sub>2</sub> with a crystal phase of beta-spodumene or beta-quartz having a crystal size not greater than 2 microns, see column 3, lines 46-52 and column 4, lines 4-64. Mitachi et al fail to exemplify a composition that falls within the claimed ranges and/or having the claimed Li<sub>2</sub>O to K<sub>2</sub>O ratio of less than 2.2.

Example 9 is in such close proximity that the instant invention would be considered obvious to one of ordinary skill in the art. The subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made to

Art Unit: 1755

have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Malagari*, 182 U.S.P.Q. 549.

7. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sakamoto et al (EP 1050519).

Sakamoto et al teach a crystallized glass composition including 60-75% SiO<sub>2</sub>, 16-28 Al<sub>2</sub>O<sub>3</sub>, 1.8-5 Li<sub>2</sub>O, 0-10 K<sub>2</sub>O and 1.5-5 TiO<sub>2</sub> with a crystal phase of beta-spodumene or beta-quartz having a crystal size not greater than 3 microns, see page 3, lines 37-40 and 49-51. Sakamoto et al fail to teach an example which falls within the ranges of the instant claims. However, The subject matter as a whole would have been obvious to one of ordinary skill in the art at the time the invention was made to have selected the overlapping portion of the range disclosed by the reference because overlapping ranges have been held to be a prima facie case of obviousness, see *In re Malagari*, 182 U.S.P.Q. 549.


### ***Conclusion***

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karl E. Group whose telephone number is 571-272-1368. The examiner can normally be reached on M-F (6:30-4:00) First Friday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Bell can be reached on 571-272-1362. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Art Unit: 1755

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karl E Group  
Primary Examiner  
Art Unit 1755

Keg  
1-4-05